DOCUMENT RESUME

ED 234 129 UD 023 064

TITLE Reading and Math through the Community as Classroom, Summer 1982. Annual Evaluation Report. E.S.E.A. Title I.

INSTITUTION New York City Board of Education, Brooklyn, N.Y. Office of Educational Evaluation.

PUB DATE 82

NOTE 24p.

PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS *Achievement Gains; Athletics; *Community Resources; Compensatory Education; Disabilities; *Disadvantaged Youth; Elementary Secondary Education; Mathematics Achievement; Program Effectiveness; Reading Achievement; Remedial Programs; *Special Education; *Summer Schools

IDENTIFIERS New York City Board of Education; *Reading and Math through Community as Classroom NY

ABSTRACT

This report presents evaluation findings for the 1982 summer cycle of "Reading and Math Through the Community as Classroom," a Title I funded program operated by the Division of Special Education, of the New York City Public Schools. The program was designed to provide supplementary remediation to 1,197 mildly to moderately handicapped youngsters, and incorporate community experiences and sports activities into reading and math instruction. Results of analyses of pupil achievement data and program interviews and observations indicated that the summer program effectively met its proposed goals. Nearly all of the program participants mastered one or more new skills in reading (87.8 percent) and in math (91.9 percent). Students were also reported by teachers to have made social gains. Program sites were well-chosen and staff were enthusiastic. During 1982, the program made improvements over previous years in preparation, implementation, teacher appointments, and transportation services. However, attrition and the need to recruit new students posed problems. Based on evaluation findings, it is recommended (1) that pre-planning be undertaken as early as possible to ensure optimal student recruitment, teacher assignment, and provision of materials and supplies, and (2) that difficulties with transportation be addressed, possibly by utilizing mini-bus services and by requiring pre-program trial runs. (Author/GC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
T. K. Minter
NYC Bd. of Ed.
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

ED234129

ANNUAL EVALUATION REPORT
E.S.E.A. TITLE I

E.S.E.A. Title I

Reading and Math
Through the Community
as Classroom

Summer 1982

Division of Special Education
Edward Sermier, Chief Administrator

D.S.E. Reimbursable Programs
Allison Tupper

John De Mello, Project Coordinator

Prepared by:

O.E.E./Special Education Evaluation Unit

Robert Tobias, Evaluation Manager
Christine Halfar, Evaluation Associate
Jerome Margolis, Evaluation Specialist
Diane Newman, Consultant

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
✓ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

UD 023 064

New York City Public Schools
Office of Educational Evaluation
Richard Guttenberg, Director

A SUMMARY OF THE EVALUATION OF THE SUMMER 1982 E.S.E.A. TITLE I READING AND MATH THROUGH THE COMMUNITY AS CLASSROOM PROGRAM

The Title I Reading and Mathematics through the Community as Classroom 1982 summer program provided supplementary remediation in reading and math by incorporating community resources and sports activities into instruction. The program served 1,197 mildly to moderately handicapped Title I-eligible students at 10 regional schools and one special school located throughout New York City.

Results of the analyses of pupil achievement data and program interviews and observations indicated that the summer program was effective in meeting its proposed goals. Nearly all of the program participants mastered one or more new skills in reading (87.8 percent) and in math (91.9 percent).

Sites were well-chosen and, for the most part, were in areas which offered a variety of community resources. Staff were enthusiastic about the program and generally considered it to be well-organized and -administered. The sports and trips component was seen as an especially positive feature. Students were reported to have made both academic and social gains, in addition to having new and varied experiences.

During the 1982 cycle, the program made improvements over previous cycles in program preparation and implementation. Significant improvements were seen in teacher appointments and, for the most part, in transportation. However, attrition and the need to recruit new students continued to pose problems this year, particularly in the first few days.

Based on the findings which have been presented, the following recommendations are offered for further improvement of this program:

--continue to pre-plan as early as possible to ensure optimal student recruitment, teacher assignment, as well as provision of materials and supplies; and

--continue to address difficulties with transportaion, possibly by utilizing mini-bus services and by requiring trial runs prior to the program.

TABLE OF CONTENTS

		Page
I.	INTRODUCTION	1
II.	EVALUATION OF PROGRAM IMPLEMENTATION	3
	Program Design	3
	Methodology	3
	Physical Setting, Equipment, and Supplies	4
	Program Organization, Implementation, and Instructional Activities	4
	Student Records, Planning, and Assessment	6
	Transportation and Scheduling	6
III.	EVALUATION OF PUPIL ACHIEVEMENT OBJECTIVES	8
	Target Population and Attendance	8
	Evaluation of Reading Objective	8
	Mastery of Component Reading Skills	9
	Evaluation of Mathematics Objective	12
	Mastery of Component Mathematics Skills	12
IV.	CONCLUSIONS AND RECOMMENDATIONS	18

LIST OF TABLES

Page

Table 1
Frequency Distribution of Mastery of Reading Objectives by Program Participants Meeting the Attendance Criterion . . . 10

Table 2
Frequency Distribution of Mastery of Reading Objectives by All Program Participants 11

Table 3
Number of Students Showing Mastery in Component Reading Skills as Measured by the Fountain Valley Reading Test . . 13

Table 4
Frequency Distribution of Mastery of Mathematics Objectives by Program Participants Meeting the Attendance Criterion. . 14

Table 5
Frequency Distribution of Mastery of Mathematics Objectives by All Program Participants 15

Table 6
Numbers of Students Showing Mastery in Component Mathematics Skills as Measured by the KeyMath Diagnostic Arithmetic Test 17

I. INTRODUCTION

This report documents the 1982 summer session of E.S.E.A. Title I Reading and Math Through the Community as a Classroom, operated by the Division of Special Education (D.S.E.) of the New York City Public Schools. This program was designed to provide supplementary remediation incorporating community experiences and sports activities into reading and math instruction. As such, the program included many of the features of the nationally-validated Learning to Read Through the Arts program (L.T.R.T.A.). Students served were 1,200 mildly to moderately handicapped Title I-eligible youngsters throughout the city. The program operated four hours a day, Monday through Friday, from July 6 to August 17, 1982 at 10 regional schools and one special school located throughout the six D.S.E. administrative regions.

Research data have indicated that continuity of educational service through the summer months can prevent the loss of learned skills that frequently occurs, especially for handicapped students. Past D.S.E. summer programs have been successful in promoting student growth and in reinforcing previous learning. For example, results of the evaluation of the 1981 summer cycle of L.T.R.T.A. indicated that nearly all (91.9 percent) of the program participants mastered at least one new skill in reading and many (62.5 percent) mastered two or more. Despite some start-up difficulties and significant problems with transportation, attendance was excellent; students were cooperative and eager to learn. Both reading and art teachers in 1981 were enthusiastic about the program and cited gains made by students in self-confidence, socialization, and creative expression, as well as their measured improvement in reading skills.

Both quantitative data on pupil achievement and qualitative data on program implementation were compliled by the Office of Educational Evaluation (O.E.E.) for the evaluation of the current program. Participating students were pre- and post-tested on the Fountain Valley Reading Test and the KeyMath Diagnostic Arithmetic Test and the results were recorded on O.E.E.-developed data retrieval forms. O.E.E. field consultants visited all program sites and completed observation and interview records. This report presents the quantitative and qualitative findings of the 1982 E.S.E.A. Title I summer program and relates these results to those of previous cycles.

II. EVALUATION OF PROGRAM IMPLEMENTATION

PROGRAM DESIGN

The 1982 summer program was designed to provide supplementary reading and math instruction to 1,200 mildly to moderately handicapped Title I-eligible children attending special education classes in community schools.

A diagnostic-prescriptive methodology was used based on profiles from the Fountain Valley Reading Test and the KeyMath Diagnostic Arithmetic Test. Students received an average of 45 minutes of reading and 45 minutes of math instruction daily. An additional period was devoted to integrating trip and sports experiences into reading and math instruction. The final period included recreational games. Each week students were taken on one local and one full-day trip to explore the larger community.

Funded program staff included 11 site supervisors, six unit teachers, 143 classroom teachers, 84 education assistants, six family workers, and 11 school secretaries. In addition, five unit teacher and five family worker positions were tax levy funded. The recreational and sports activities were organized and directed by personnel from the New York City Board of Education Big Apple Summer Recreation Program.

METHODOLOGY

Field consultants from O.E.E. made a total of 33 site visits, observing 38 of the 143 classes and interviewing 68 of the 268 program staff including 11 site supervisors, nine unit teachers, 27 teachers, 16 education assistants, two student teachers, and two Big Apple staff. All ten sites were visited at least once.

Classroom observations were scheduled for the academically-oriented periods of the school day and were equally divided among classes for behaviorally and cognitively disabled students. At two sites consultants followed two classes through a complete cycle of concept building and preparation for a trip or activity, going on the trip, and follow-up and integration of the new experience into reading and math instruction.

FINDINGS

Physical Setting, Equipment, and Supplies

Program sites in all of the D.S.E. administrative regions were well-chosen for the accommodation of handicapped students and were, for the most part, located in areas offering a variety of community resources and facilities.

Program supplies and materials were present at all sites and according to interviews were, with very few exceptions, in place at the beginning of the program. About one-half of the staff interviewed would have liked more supplies and materials but over three-fourths found what was available suitable for the population and useful for achieving program objectives.

Program Organization, Implementation, and Instructional Activities

At all sites, students received 45 minutes of daily direct individualized remedial instruction in reading and in math. The school day also included recreational and athletic activities organized by Big Apple staff members. Most classes made weekly full-day excursions to explore the larger community, traveling to such locations as the Queens Botanical Gardens, Wave Hill, Kennedy Airport, and the Staten Island Zoo.

The instructional technique and specific content covered in reading and math lessons varied according to site and teacher. Teachers cited development of experience charts and the incorportation of real-life situations as favored methods for integrating the community and sports components of the program into academic instruction.

Class sizes were generally small with an average attendance of eight students. Student-staff ratio was excellent; in almost all cases there were at least two staff present.

In about one-half of the 32 reading lessons observed instruction was primarily directed to the total group, in approximately one-third instruction was mostly one-to-one, and in a few cases small-group instruction was used. The typical reading lesson covered both comprehension and vocabulary skills; phonics and study skills were observed in fewer than one-fourth of the lessons. Approximately 40 percent of the lessons integrated recent or up-coming sports activities or trips by having students, for example, write stories about animals at the zoo or play word bingo with softball terms.

Of the 29 math lessons observed roughly one-half were in basic arithmetic operations and the others were distributed between applications of concepts of measurement, money, and time and basic content such as numeration and simple fractions. The most frequent mode of instruction was total group which occurred in half the lessons, approximately one-third of the time individualized instruction was used, and in a few instances small-group instruction predominated. In most cases, content was not directly related to sports activities or trips, but it was noted that many lessons contained references to real-life experiences such as telling time, reading a thermometer, or measuring distances.

For the most part, staff were enthusiastic about the program, particularly in its benefits for participating students. Positive effects cited included development of social and academic skills, enhanced motivation and enjoyment of recreational activities and new experiences, as well as the continuity of instruction through the summer. However, most staff felt the program would have been improved by better pre-planning, especially for the Big Apple recreational component. (See below.)

Student Records, Planning, and Assessment

Student folders were available and up-to-date at all sites and all contained samples of student work. In most cases teachers had lesson plans available and over one-half of these plans reflected the individual needs of the students.

All students were pre- and post-tested on the Fountain Valley Reading Test and the KeyMath Diagnostic Arithmetic Test. Roughly 90 percent of the pre-testing was completed by the third week of the program and all classes were reported to have completed post-testing by the last week. Almost all staff interviewed expressed general satisfaction with the assessment instruments, finding them useful in pinpointing student needs.

Transportation and Scheduling

Transportation service was solicited through open bidding and busing was provided by a number of companies. At the one special school students used public transportation.

The organization of busing varied from site to site. One-fifth of the staff interviewed reported no problems with transportation and the remainder

reported problems which were mostly resolved during the first week. However, in one region, drivers went on strike mid-way through the program causing substantial disruption. Attempts to ameliorate this situation included the distribution of tokens for public transportation, the utilization of private car services, and the transportation of students by parents. Trips were curtailed and recreational and sports activities took place on-site.

Staff were selected on the basis of previous summer school program participation and retention rights. Teachers felt that there was adequate communication among staff members as well as between staff and administration. Experience of staff members, quality of administration, and especially cooperation were most frequently seen as contributing to staff effectiveness.

Delays in program approval apparently led to a number of problems, especially during the initial days of the program. Although students were registered well in advance, parents were not notified about bus service until a few days before the program, apparently causing low attendance during the first week since many families had made other arrangements for the summer. Site supervisors found it necessary to recruit additional students through telephone campaigns. Planning difficulties were also encountered with the Big Apple component of the program as the details of Big Apple participation were not finalized until immediately before the program.

III. EVALUATION OF PUPIL ACHIEVEMENT OBJECTIVES

This chapter presents descriptive analyses of the target population, pupil attendance, and reading and mathematics achievement data. Pupil achievement was monitored through ongoing administration of the Fountain Valley Reading and KeyMath Diagnostic Arithmetic Tests and was reported by program teachers on O.E.E.-designed data retrieval forms.

FINDINGS

Target Population and Attendance

The program operated from July 6 to August 17, 1982, a total of 31 days. In all 1,197 students participated. Nearly half (42.0 percent) of these were in Health Conservation 30 (H.C.-30) classes for neurologically impaired or learning disabled students, one-fifth (21.7 percent) were classified as emotionally handicapped, about one-seventh (13.5 percent) were in classes for educable mentally retarded students, and one-eighth (12.5 percent) were students with speech, language, or hearing impairments (SLHIC).

Students' ages ranged from five to 20 years and averaged 11 years (S.D. = 2.5); over three-fourths (77.1 percent) were between nine and 13. Most students (80.3 percent) attended elementary schools, 13.7 percent attended intermediate and junior high schools, and 5.9 percent attended high schools.

Mean attendance was 21.9 days (S.D. = 7.8) and 785 students attended at least 20 program sessions. Mean percentage attendance was 77.2 percent (S.D. = 2.4 percent).

Evaluation of Reading Objective

The reading objective proposed that 80 percent of the students who

attended at least 20 program sessions would demonstrate growth in reading as shown by mastery of at least one new skill on the Fountain Valley Reading Test. Reading data were reported for 1,120 students. To determine whether the objective was attained a frequency distribution of reading mastery was prepared for students meeting the 20-day attendance criterion. These data, which are presented in Table 1, indicated that nearly 90 percent of the 782 students attending 20 or more sessions mastered at least one new reading skill and more than half mastered two or more. Accordingly, the objective was surpassed.

Analyses of reading achievement by school level showed similar mastery patterns; 89 percent of the elementary school students, 93 percent of the intermediate and junior high school students, and 81 percent of the high school students mastered one or more reading skills.

For the total population, including those students attending fewer than 20 sessions, nearly 85 percent mastered at least one new skill and almost half mastered two or more. (These data are presented in Table 2.)

Mastery of Component Reading Skills

Further analyses indicated that most of the reading skills taught and mastered were in the areas of comprehension, phonetic analysis, and vocabulary which parallels the observational data. Two-thirds of the students for whom reading data were reported mastered at least one new skill in comprehension and one-third showed mastery of phonetic analysis or vocabulary skills. One-tenth or fewer mastered structural analysis or study skills. (These data are presented in Table 3.)

TABLE 1

Frequency Distribution of Mastery of Reading Objectives
by Program Participants Meeting the Attendance Criterion

Number of Objectives Mastered	Number of Students (Relative Percent)	(Cumulative Percent)
4 or more	31 (4.0)	(4.0)
3	129 (16.5)	(20.5)
2	250 (32.0)	(52.5)
1	276 (35.3)	(87.8)
0	96 (12.3)	(100.1[b])
	782	

[a]Measured by the Fountain Valley Individual Assessment Program in Reading

[b]More than 100 percent due to rounding error.

.Over 87 percent of the 782 students who met the program's attendance criterion of 20 sessions, established as the minimum level of instruction necessary to demonstrate reading growth, mastered one or more reading skills. The student achievement criterion was 80 percent; thus the program's reading objective was attained.

TABLE 2

Frequency Distribution of Mastery of Reading Objectives by All Program Participants

Number of Objectives Mastered	Number of Students (Relative Percent)	(Cumulative Percent)
4 or more	42 (3.8)	(3.8)
3	177 (15.8)	(19.6)
2	339 (30.3)	(49.9)
1	385 (34.4)	(84.3)
0	177 (15.8)	(100.1[b])
	1,120	

[a]Measured by the Fountain Valley Individual Assessment Program in Reading

[b]More than 100 percent due to rounding error.

.Over 84 percent of the 1,120 students for whom reading data were reported mastered one or more reading skills.

Evaluation of Mathematics Objective

The mathematics objective proposed that 80 percent of the students who attended at least 20 program sessions would demonstrate growth in mathematics as shown by mastery of at least one new skill on the KeyMath Diagnostic Arithmetic Test. Mathematics data were reported for 1,125 students. To determine whether the objective was attained a frequency distribution of mathematics mastery was prepared for students meeting the 20-day attendance criterion. These data, which are presented in Table 4, indicated that over 90 percent of students attending 20 or more sessions mastered at least one new math skill and over half mastered two or more. Accordingly, the objective was surpassed.

Analyses of mathematics achievement by school level also showed similar mastery patterns; 90 percent of the elementary school students, 98 percent of the intermediate and junior high school students, and 95 percent of the high school students mastered one or more reading skills.

For the total population, including those students attending fewer than 20 sessions, nearly 90 percent mastered at least one skill and over half mastered two or more. (These data are presented in Table 5.)

Mastery of Component Mathematics Skills

Further analyses indicated that most of the skills taught and mastered were in basic computation and functional mathematics. About one-third of the students for whom mathematics data were reported mastered at least one new skill in addition, about one-fifth each mastered subtraction skills or skills involving money, and one-sixth mastered skills, in measurement

TABLE 3

Number of Students Showing Mastery in Component
Reading Skills as Measured by the Fountain Valley Reading Test
(N = 1,120)

Skill Area	Number of Students Showing Mastery
Comprehension	744
Phonetic Analysis	348
Vocabulary	342
Study Skills	118
Structural Analysis	70

- Two-thirds of the students for whom reading data were reported mastered at least one skill in comprehension.
- One-third mastered at least one skill in phonetic analysis or vocabulary.
- One-tenth or fewer of the students mastered structural analysis or study skills.

TABLE 4

Frequency Distribution of Mastery of Mathematics Objectives by Program Participants Meeting the Attendance Criterion

Number of Objectives Mastered	Number of Students (Relative Percent)	(Cumulative Percent)
4 or more	45 (5.7)	(5.7)
3	144 (18.3)	(24.0)
2	247 (31.5)	(55.5)
1	286 (36.4)	(91.9)
0	63 (8.0)	(99.9[b])
	785	

[a]Measured by the KeyMath Diagnostic Arithmetic Test.

[b]Less than 100 percent due to rounding error.

.Nearly 92 percent of the 785 students who met the program's attendance criterion of 20 sessions, established as the minimum level of instruction necessary to demonstrate mathematics growth, mastered one or more mathematics skills. The student achievement criterion was 80 percent; thus the program's mathematics objective was attained.

TABLE 5

Frequency Distribution of Mastery of Mathematics Objectives by All Program Participants

Number of Objectives Mastered	Number of Students (Relative Percent)	(Cumulative Percent)
4 or more	62 (5.5)	(5.5)
3	191 (17.0)	(22.5)
2	348 (30.9)	(53.4)
1	385 (34.2)	(87.6)
0	139 (12.4)	(100.0)
	1,125	

[a]Measured by the KeyMath Diagnostic Arithmetic Test.

.Over 87 percent of the 1,125 students for whom mathematics data were reported mastered one or more mathematics skills.

of time. As was true for component reading skills, these findings parallel the distribution of content areas in the observed math lessons. (See Table 6.)

TABLE 6

Numbers of Students Showing Mastery in Component Mathematics Skills as Measured by the KeyMath Diagnostic Arithmetic Test (N = 1,125)

Skill Area	Number of Students Showing Mastery
Addition	351
Subtraction	253
Money	236
Time	193
Measurement	137
Multiplication	102
Numeration	75
Fractions	74
Division	36

.Most of the skills taught and mastered were in basic computation and functional mathematics.

IV. CONCLUSIONS AND RECOMMENDATIONS

The Title I Reading and Mathematics through the Community as Classroom 1982 summer program provided supplementary remediation in reading and math by incorporating community resources and sports activities into instruction. The program served 1,197 mildly to moderately handicapped Title I-eligible students at 10 regional schools and one special school located throughout New York City.

Results of the analyses of pupil achievement data and program interviews and observations indicated that the summer program was effective in meeting its proposed goals. Nearly all of the program participants mastered one or more new skills in reading (87.8 percent) and in math (91.9 percent).

Sites were well-chosen and, for the most past, were in areas which offered a variety of community resources. Staff were enthusiastic about the program and generally considered it to be well-organized and -administered. The sports and trips component was seen as an especially positive feature. Students were reported to have made both academic and social gains, in addition to having new and varied experiences.

During the 1982 cycle, the program made improvements over previous cycles in program preparation and implementation. Substantial improvements were seen in teacher appointments and, for the most part, in transportation services. However, attrition and the need to recruit new students continued to pose problems this year, particularly in the first few days.

Based on the findings which have been presented, the following recommendations are offered for further improvement of this program:

--continue to pre-plan as early as possible to ensure optimal student recruitment, teacher assignment, as well as provision of materials and supplies;

--continue to address difficulties with transportation, possibly by utilizing mini-bus services and by requiring trial runs prior to the program.